RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: _10/531,427_

Source: _1FwP_

Date Processed by STIC: _8/4/06_

ENTERED

IFWP

```
   3 <110> APPLICANT: MIYATA, Toshiyuki
   4         KOKAME, Koichi
   6 <120> TITLE OF INVENTION: SUBSTRATES SPECIFIC TO VON WILLEBRAND FACTOR CLEAVING
PROTEASE AND METHOD
   7         OF ASSAYING THE ACTIVITY
   9 <130> FILE REFERENCE: 0020-5363PUS1
  11 <140> CURRENT APPLICATION NUMBER: US 10/531,427
  12 <141> CURRENT FILING DATE: 2005-04-15
  14 <150> PRIOR APPLICATION NUMBER: PCT/JP02/10816
  15 <151> PRIOR FILING DATE: 2002-10-18
  17 <160> NUMBER OF SEQ ID NOS: 12
  19 <210> SEQ ID NO: 1
  20 <211> LENGTH: 2813
  21 <212> TYPE: PRT
  22 <213> ORGANISM: Homo sapiens
  24 <400> SEQUENCE: 1
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  26  1               5                  10                  15
  27 Leu Pro Gly Thr Leu Cys Ala Glu Gly Thr Arg Gly Arg Ser Ser Thr
  28              20                  25                  30
  29 Ala Arg Cys Ser Leu Phe Gly Ser Asp Phe Val Asn Thr Phe Asp Gly
  30          35                  40                  45
  31 Ser Met Tyr Ser Phe Ala Gly Tyr Cys Ser Tyr Leu Leu Ala Gly Gly
  32      50                  55                  60
  33 Cys Gln Lys Arg Ser Phe Ser Ile Ile Gly Asp Phe Gln Asn Gly Lys
  34 65                  70                  75                  80
  35 Arg Val Ser Leu Ser Val Tyr Leu Gly Glu Phe Phe Asp Ile His Leu
  36              85                  90                  95
  37 Phe Val Asn Gly Thr Val Thr Gln Gly Asp Gln Arg Val Ser Met Pro
  38              100                 105                 110
  39 Tyr Ala Ser Lys Gly Leu Tyr Leu Glu Thr Glu Ala Gly Tyr Tyr Lys
  40          115                 120                 125
  41 Leu Ser Gly Glu Ala Tyr Gly Phe Val Ala Arg Ile Asp Gly Ser Gly
  42      130                 135                 140
  43 Asn Phe Gln Val Leu Leu Ser Asp Arg Tyr Phe Asn Lys Thr Cys Gly
  44 145                 150                 155                 160
  45 Leu Cys Gly Asn Phe Asn Ile Phe Ala Glu Asp Asp Phe Met Thr Gln
  46              165                 170                 175
  47 Glu Gly Thr Leu Thr Ser Asp Pro Tyr Asp Phe Ala Asn Ser Trp Ala
  48              180                 185                 190
  49 Leu Ser Ser Gly Glu Gln Trp Cys Glu Arg Ala Ser Pro Pro Ser Ser
  50          195                 200                 205
  51 Ser Cys Asn Ile Ser Ser Gly Glu Met Gln Lys Gly Leu Trp Glu Gln
  52      210                 215                 220
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53 Cys Gln Leu Leu Lys Ser Thr Ser Val Phe Ala Arg Cys His Pro Leu
54 225               230               235               240
55 Val Asp Pro Glu Pro Phe Val Ala Leu Cys Glu Lys Thr Leu Cys Glu
56           245               250               255
57 Cys Ala Gly Gly Leu Glu Cys Ala Cys Pro Ala Leu Leu Glu Tyr Ala
58           260               265               270
59 Arg Thr Cys Ala Gln Glu Gly Met Val Leu Tyr Gly Trp Thr Asp His
60           275               280               285
61 Ser Ala Cys Ser Pro Val Cys Pro Ala Gly Met Glu Tyr Arg Gln Cys
62      290               295               300
63 Val Ser Pro Cys Ala Arg Thr Cys Gln Ser Leu His Ile Asn Glu Met
64 305               310               315               320
65 Cys Gln Glu Arg Cys Val Asp Gly Cys Ser Cys Pro Glu Gly Gln Leu
66           325               330               335
67 Leu Asp Glu Gly Leu Cys Val Glu Ser Thr Glu Cys Pro Cys Val His
68           340               345               350
69 Ser Gly Lys Arg Tyr Pro Pro Gly Thr Ser Leu Ser Arg Asp Cys Asn
70           355               360               365
71 Thr Cys Ile Cys Arg Asn Ser Gln Trp Ile Cys Ser Asn Glu Glu Cys
72      370               375               380
73 Pro Gly Glu Cys Leu Val Thr Gly Gln Ser His Phe Lys Ser Phe Asp
74 385               390               395               400
75 Asn Arg Tyr Phe Thr Phe Ser Gly Ile Cys Gln Tyr Leu Leu Ala Arg
76           405               410               415
77 Asp Cys Gln Asp His Ser Phe Ser Ile Val Ile Glu Thr Val Gln Cys
78           420               425               430
79 Ala Asp Asp Arg Asp Ala Val Cys Thr Arg Ser Val Thr Val Arg Leu
80           435               440               445
81 Pro Gly Leu His Asn Ser Leu Val Lys Leu Lys His Gly Ala Gly Val
82      450               455               460
83 Ala Met Asp Gly Gln Asp Val Gln Leu Pro Leu Leu Lys Gly Asp Leu
84 465               470               475               480
85 Arg Ile Gln His Thr Val Thr Ala Ser Val Arg Leu Ser Tyr Gly Glu
86           485               490               495
87 Asp Leu Gln Met Asp Trp Asp Gly Arg Gly Arg Leu Leu Val Lys Leu
88           500               505               510
89 Ser Pro Val Tyr Ala Gly Lys Thr Cys Gly Leu Cys Gly Asn Tyr Asn
90           515               520               525
91 Gly Asn Gln Gly Asp Asp Phe Leu Thr Pro Ser Gly Leu Ala Glu Pro
92      530               535               540
93 Arg Val Glu Asp Phe Gly Asn Ala Trp Lys Leu His Gly Asp Cys Gln
94 545               550               555               560
95 Asp Leu Gln Lys Gln His Ser Asp Pro Cys Ala Leu Asn Pro Arg Met
96           565               570               575
97 Thr Arg Phe Ser Glu Glu Ala Cys Ala Val Leu Thr Ser Pro Thr Phe
98           580               585               590
99 Glu Ala Cys His Arg Ala Val Ser Pro Leu Pro Tyr Leu Arg Asn Cys
100          595               600               605
101 Arg Tyr Asp Val Cys Ser Cys Ser Asp Gly Arg Glu Cys Leu Cys Gly
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102     610                   615                   620
103 Ala Leu Ala Ser Tyr Ala Ala Ala Cys Ala Gly Arg Gly Val Arg Val
104 625                   630                   635                   640
105 Ala Trp Arg Glu Pro Gly Arg Cys Glu Leu Asn Cys Pro Lys Gly Gln
106                   645                   650                   ·655
107 Val Tyr Leu Gln Cys Gly Thr Pro Cys Asn Leu Thr Cys Arg Ser Leu
108                   660                   665                   670
109 Ser Tyr Pro Asp Glu Glu Cys Asn Glu Ala Cys Leu Glu Gly Cys Phe
110             675                   680                   685
111 Cys Pro Pro Gly Leu Tyr Met Asp Glu Arg Gly Asp Cys Val Pro Lys
112     690                   695                   700
113 Ala Gln Cys Pro Cys Tyr Tyr Asp Gly Glu Ile Phe Gln Pro Glu Asp
114 705                   710                   715                   720
115 Ile Phe Ser Asp His His Thr Met Cys Tyr Cys Glu Asp Gly Phe Met
116                   725                   730                   735
117 His Cys Thr Met Ser Gly Val Pro Gly Ser Leu Leu Pro Asp Ala Val
118             740                   745                   750
119 Leu Ser Ser Pro Leu Ser His Arg Ser Lys Arg Ser Leu Ser Cys Arg
120             755                   760                   765
121 Pro Pro Met Val Lys Leu Val Cys Pro Ala Asp Asn Leu Arg Ala Glu
122     770                   775                   780
123 Gly Leu Glu Cys Thr Lys Thr Cys Gln Asn Tyr Asp Leu Glu Cys Met
124 785                   790                   795                   800
125 Ser Met Gly Cys Val Ser Gly Cys Leu Cys Pro Pro Gly Met Val Arg
126             805                   810                   815
127 His Glu Asn Arg Cys Val Ala Leu Glu Arg Cys Pro Cys Phe His Gln
128             820                   825                   830
129 Gly Lys Glu Tyr Ala Pro Gly Glu Thr Val Lys Ile Gly Cys Asn Thr
130             835                   840                   845
131 Cys Val Cys Arg Asp Arg Lys Trp Asn Cys Thr Asp His Val Cys Asp
132     850                   855                   860
133 Ala Thr Cys Ser Thr Ile Gly Met Ala His Tyr Leu Thr Phe Asp Gly
134 865                   870                   875                   880
135 Leu Lys Tyr Leu Phe Pro Gly Glu Cys Gln Tyr Val Leu Val Gln Asp
136             885                   890                   895
137 Tyr Cys Gly Ser Asn Pro Gly Thr Phe Arg Ile Leu Val Gly Asn Lys
138             900                   905                   910
139 Gly Cys Ser His Pro Ser Val Lys Cys Lys Lys Arg Val Thr Ile Leu
140             915                   920                   925
141 Val Glu Gly Gly Glu Ile Glu Leu Phe Asp Gly Glu Val Asn Val Lys
142     930                   935                   940
143 Arg Pro Met Lys Asp Glu Thr His Phe Glu Val Val Glu Ser Gly Arg
144 945                   950                   955                   960
145 Tyr Ile Ile Leu Leu Leu Gly Lys Ala Leu Ser Val Val Trp Asp Arg
146             965                   970                   975
147 His Leu Ser Ile Ser Val Val Leu Lys Gln Thr Tyr Gln Glu Lys Val
148             980                   985                   990
149 Cys Gly Leu Cys Gly Asn Phe Asp Gly Ile Gln Asn Asn Asp Leu Thr
150             995                   1000                  1005
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151 Ser Ser Asn Leu Gln Val Glu Glu Asp Pro Val Asp Phe Gly Asn Ser
152     1010            1015              1020
153 Trp Lys Val Ser Ser Gln Cys Ala Asp Thr Arg Lys Val Pro Leu Asp
154 1025            1030              1035              1040
155 Ser Ser Pro Ala Thr Cys His Asn Asn Ile Met Lys Gln Thr Met Val
156             1045              1050              1055
157 Asp Ser Ser Cys Arg Ile Leu Thr Ser Asp Val Phe Gln Asp Cys Asn
158             1060              1065              1070
159 Lys Leu Val Asp Pro Glu Pro Tyr Leu Asp Val Cys Ile Tyr Asp Thr
160         1075              1080              1085
161 Cys Ser Cys Glu Ser Ile Gly Asp Cys Ala Cys Phe Cys Asp Thr Ile
162     1090              1095              1100
163 Ala Ala Tyr Ala His Val Cys Ala Gln His Gly Lys Val Val Thr Trp
164 1105            1110              1115              1120
165 Arg Thr Ala Thr Leu Cys Pro Gln Ser Cys Glu Glu Arg Asn Leu Arg
166             1125              1130              1135
167 Glu Asn Gly Tyr Glu Cys Glu Trp Arg Tyr Asn Ser Cys Ala Pro Ala
168             1140              1145              1150
169 Cys Gln Val Thr Cys Gln His Pro Glu Pro Leu Ala Cys Pro Val Gln
170         1155              1160              1165
171 Cys Val Glu Gly Cys His Ala His Cys Pro Pro Gly Lys Ile Leu Asp
172     1170              1175              1180
173 Glu Leu Leu Gln Thr Cys Val Asp Pro Glu Asp Cys Pro Val Cys Glu
174 1185            1190              1195              1200
175 Val Ala Gly Arg Arg Phe Ala Ser Gly Lys Lys Val Thr Leu Asn Pro
176             1205              1210              1215
177 Ser Asp Pro Glu His Cys Gln Ile Cys His Cys Asp Val Val Asn Leu
178             1220              1225              1230
179 Thr Cys Glu Ala Cys Gln Glu Pro Gly Gly Leu Val Val Pro Pro Thr
180         1235              1240              1245
181 Asp Ala Pro Val Ser Pro Thr Thr Leu Tyr Val Glu Asp Ile Ser Glu
182     1250              1255              1260
183 Pro Pro Leu His Asp Phe Tyr Cys Ser Arg Leu Leu Asp Leu Val Phe
184 1265            1270              1275              1280
185 Leu Leu Asp Gly Ser Ser Arg Leu Ser Glu Ala Glu Phe Glu Val Leu
186             1285              1290              1295
187 Lys Ala Phe Val Val Asp Met Met Glu Arg Leu Arg Ile Ser Gln Lys
188         1300              1305              1310
189 Trp Val Arg Val Ala Val Val Glu Tyr His Asp Gly Ser His Ala Tyr
190         1315              1320              1325
191 Ile Gly Leu Lys Asp Arg Lys Arg Pro Ser Glu Leu Arg Arg Ile Ala
192     1330              1335              1340
193 Ser Gln Val Lys Tyr Ala Gly Ser Gln Val Ala Ser Thr Ser Glu Val
194 1345            1350              1355              1360
195 Leu Lys Tyr Thr Leu Phe Gln Ile Phe Ser Lys Ile Asp Arg Pro Glu
196             1365              1370              1375
197 Ala Ser Arg Ile Ala Leu Leu Leu Met Ala Ser Gln Glu Pro Gln Arg
198             1380              1385              1390
199 Met Ser Arg Asn Phe Val Arg Tyr Val Gln Gly Leu Lys Lys Lys Lys
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RAW SEQUENCE LISTING   DATE: 08/04/2006
PATENT APPLICATION: US/10/531,427   TIME: 13:11:47

Input Set : A:\2005-11-10 0020-5363PUS1.txt
Output Set: N:\CRF4\08042006\J531427.raw

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202    1410              1415              1420
203 Ile Arg Leu Ile Glu Lys Gln Ala Pro Glu Asn Lys Ala Phe Val Leu
204 1425            1430              1435              1440
205 Ser Ser Val Asp Glu Leu Glu Gln Gln Arg Asp Glu Ile Val Ser Tyr
206            1445              1450              1455
207 Leu Cys Asp Leu Ala Pro Glu Ala Pro Pro Thr Leu Pro Pro His
208        1460              1465              1470
209 Met Ala Gln Val Thr Val Gly Pro Gly Leu Leu Gly Val Ser Thr Leu
210    1475              1480              1485
211 Gly Pro Lys Arg Asn Ser Met Val Leu Asp Val Ala Phe Val Leu Glu
212    1490              1495              1500
213 Gly Ser Asp Lys Ile Gly Glu Ala Asp Phe Asn Arg Ser Lys Glu Phe
214 1505            1510              1515              1520
215 Met Glu Glu Val Ile Gln Arg Met Asp Val Gly Gln Asp Ser Ile His
216            1525          ·   1530              1535
217 Val Thr Val Leu Gln Tyr Ser Tyr Met Val Thr Val Glu Tyr Pro Phe
218    ·       1540              1545              1550
219 Ser Glu Ala Gln Ser Lys Gly Asp Ile Leu Gln Arg Val Arg Glu Ile
220        1555              1560              1565
221 Arg Tyr Gln Gly Gly Asn Arg Thr Asn Thr Gly Leu Ala Leu Arg Tyr
222    1570              1575.             1580
223 Leu Ser Asp His Ser Phe Leu Val Ser Gln Gly Asp Arg Glu Gln Ala
224 1585            1590              1595              1600
225 Pro Asn Leu Val Tyr Met Val Thr Gly Asn Pro Ala Ser Asp Glu Ile
226            1605              1610              1615
227 Lys Arg Leu Pro Gly Asp Ile Gln Val Val Pro Ile Gly Val Gly Pro
228        1620              1625              1630
229 Asn Ala Asn Val Gln Glu Leu Glu Arg Ile Gly Trp Pro Asn Ala Pro
230        1635              1640              1645
231 Ile Leu Ile Gln Asp Phe Glu Thr Leu Pro Arg Glu Ala Pro Asp Leu
232    1650              1655              1660
233 Val Leu Gln Arg Cys Cys Ser Gly Glu Gly Leu Gln Ile Pro Thr Leu
234 1665            1670              1675              1680
235 Ser Pro Ala Pro Asp Cys Ser Gln Pro Leu Asp Val Ile Leu Leu Leu
236            1685              1690              1695
237 Asp Gly Ser Ser Ser Phe Pro Ala Ser Tyr Phe Asp Glu Met Lys Ser
238        1700              1705              1710
239 Phe Ala Lys Ala Phe Ile Ser Lys Ala Asn Ile Gly Pro Arg Leu Thr
240    1715              1720              1725
241 Gln Val Ser Val Leu Gln Tyr Gly Ser Ile Thr Thr Ile Asp Val Pro
242    1730              1735              1740
243 Trp Asn Val Val Pro Glu Lys Ala His Leu Leu Ser Leu Val Asp Val
244 1745            1750              1755              1760
245 Met Gln Arg Glu Gly Gly Pro Ser Gln Ile Gly Asp Ala Leu Gly Phe
246            1765              1770              1775
247 Ala Val Arg Tyr Leu Thr Ser Glu Met His Gly Ala Arg Pro Gly Ala
248        1780              1785              1790
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RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 08/04/2006
PATENT APPLICATION: US/10/531,427   TIME: 13:11:49

Input Set : **A:\2005-11-10 0020-5363PUS1.txt**
Output Set: **N:\CRF4\08042006\J531427.raw**

Invalid Line Length:
The rules require that a line not exceed 72 characters in length. This includes spaces.

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Seq#:7; Line(s) 493
Seq#:8; Line(s) 504
Seq#:9; Line(s) 515
Seq#:10; Line(s) 526
Seq#:11; Line(s) 537
Seq#:12; Line(s) 548

VERIFICATION SUMMARY   DATE: 08/04/2006
PATENT APPLICATION: **US/10/531,427**   TIME: 13:11:49

Input Set : **A:\2005-11-10 0020-5363PUS1.txt**
Output Set: **N:\CRF4\08042006\J531427.raw**